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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/557,971	11/17/2005	Constant Paul Marie Josef Baggen	FR 030056	6457

24737 7590 01/22/2008
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

RUSH, ERIC

ART UNIT	PAPER NUMBER
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2624

MAIL DATE	DELIVERY MODE
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01/22/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/557,971	Applicant(s) BAGGEN ET AL.	
	Examiner Eric Rush	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/17/2005; 05/22/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because *the unlabeled rectangular box(es) shown in the drawings should be provided with descriptive text labels*. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 9 is objected to because of the following informalities: Claim 9 is drawn to a reading/writing device but depends from claim 6 which is drawn to an identification device. Claim 9 appears to be dependent of claim 8, and the Examiner will treat the claim as being dependent of claim 8. Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention appears to be directed towards a computer program, which is not patentable eligible subject matter. Any computer executable software code must be stored in a computer readable storage medium to enable the underlying functionality. A structural and functional interrelationship between the computer program and the structural elements of the computer, which would permit its functionality to be realized, should be included in the claim. An example of acceptable language under 35 U.S.C. 101 would be "a computer readable medium storing a computer program...".

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner cannot ascertain the scope of the claimed limitation, particularly, wherein said measurement means comprise processing means for generating a set of values representing the frequency spectrum of said control signal... but it appears that the control signal is generated from the system.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4-5 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiratsuka et al. U.S. Patent No. 6,526,396.

- With regards to claims 1 & 4, Hiratsuka et al. teach a verification method and an identification device (Hiratsuka et al., Column 11 Lines 16 - 28) for verifying the identity of an object from a verification measurement which characterizes said object, and from a pre-stored enrollment measurement, (Hiratsuka et al., Column 11 Line 63 – Column 12 Line 16) wherein the

enrollment measurement and the verification measurement are modeled as a first and a second realization of a first random variable affected by an enrollment noise and a verification noise, respectively, (Hiratsuka et al., Hiratsuka et al., Column 11 Line 63 – Column 12 Line 16, the inputted images are all subject to random noise so to overcome this Hiratsuka et al. use multiple images and extract mean and variance values in order to appropriately compensate) said enrollment noise being a realization of a second random variable, said verification noise being a realization of a third random variable, said first, second and third random variables having known distributions, (Hiratsuka et al., Column 13 Lines 37 – 53, the realizations of random variables are the fingerprint image data which are subjected to feature extraction and quantification) said verification method comprising the steps of: calculating, for said enrollment measurement and said verification measurement, the value of a function of the ratio of a bivariate joint probability density function under a first hypotheses and a second hypothesis, (Hiratsuka et al., Figs. 5 & 11, Column 12 Line 40 – Column 13 Line 18, Column 13 Lines 19 – 36, Hiratsuka et al. uses multiple hypotheses as to whom the fingerprint registers to) said first hypothesis being that said first and second realization of the first random variable are the same, (Hiratsuka et al., Fig. 5, Column 14 Lines 38 – 67, the first random variable is an inputted fingerprint and the first and second realizations are registered fingerprints, i.e. the inputted fingerprint and a

stored fingerprint) said second hypothesis being that said first and second hypothesis being that said first and second realizations are different, (Hiratsuka et al., Fig. 5, Column 14 Lines 46 - 67) taking a decision whether or not the enrollment measurement and the verification measurement are from the same object by comparing the calculated value with a threshold value. (Hiratsuka et al., Fig. 5, Column 14 Lines 46 - 67)

- With regards to claim 5, Hiratsuka et al. teach an identification device as claimed in claim 4, wherein said measurements are measurements of a physiological or a behavioral characteristic of said user. (Hiratsuka et al., Column 12 Lines 7 - 16)
- With regards to claim 10, Hiratsuka et al. teach a program comprising code instructions for implementing a verification method as claimed in claim 1 when said program is executed by a processor. (Hiratsuka et al., Column 19 Line 52 – Column 20 Line 13)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 2-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiratsuka et al. U.S. Patent No. 6,526,396 as applied to claims 1 and 4 above, and further in view of Baggenstoss U.S. Patent No. 6,535,641.

- With regards to claim 2, Hiratsuka et al. teach a verification method as claimed in claim 1. Hiratsuka et al. fail to teach wherein said function is a logarithmic function. Baggenstoss teaches wherein said function is a logarithmic function. (Baggenstoss, Column 7 Lines 31 - 40) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Hiratsuka et al. with the teachings of Baggenstoss. This modification would have been prompted because both teachings relate to classifying/identifying data and the logarithmic function would be applicable for determining how likely a match is.

- With regards to claims 3 and 6, Hiratsuka et al. teach a verification method and identification devices as claimed in claims 1 and 4. Hiratsuka et al. fail to teach wherein said known distributions are Gaussian distributions. Baggenstoss teaches wherein said known distributions are Gaussian distributions. (Baggenstoss, Column 4 Lines 26 - 45, Column 5 Line 17 – Column 6 Line 2) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Hiratsuka et al. with the teachings of Baggenstoss. This modification would have been prompted because both teachings relate to classifying/identifying data and the use of modeling noise as a Gaussian distribution would be helpful in eliminating as much background noise as possible in order to reduce the input data to the most relevant data for identification or classification.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiratsuka et al. U.S. Patent No. 6,526,396 as applied to claim 4 above, and further in view of Kramer U.S. Patent No. 6,442,286.

- With regards to claim 7, Hiratsuka teach a device as claimed in claim 4 but fail to teach a smart card comprising that identification device as claimed in claim 4. Kramer teaches a smart card comprising an identification device. (Kramer, Column 2 Lines 20 - 34) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the

teachings of Hiratsuka et al. to include the teachings of Kramer. This modification would have been prompted in order to allow the verification system to have increased portability and be used as a safeguard in financial transactions.

12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiratsuka et al. U.S. Patent No. 6,526,396 and further in view of Asano et al. U.S. Patent No. 6,999,587.

- With regards to claim 8, Hiratsuka et al. teach a reading/writing device for reading and/or writing data from/onto a record medium, (Hiratsuka et al., Column 19 Line 52 – Column 20 Line 13) said reading/writing device having: measurement means for generating a measurement which characterizes a record medium, (Hiratsuka et al., Hiratsuka et al., Column 11 Line 63 – Column 12 Line 16) said measurement uniquely identifying said record medium, (Hiratsuka et al., Hiratsuka et al., Column 11 Line 63 – Column 12 Line 16) verification means for verifying the identity of a record medium from a verification measurement which characterizes said record medium and an enrollment measurement, (Hiratsuka et al., Hiratsuka et al., Column 11 Line 63 – Column 12 Line 16) wherein the enrollment and the verification measurements are modeled as a first and a second realization of a first random variable affected by an enrollment

noise and a verification noise, respectively, (Hiratsuka et al., Column 11 Line 63 – Column 12 Line 16, Column 13 Lines 37 – 53) said enrollment noise being a realization of a second random variable, said verification noise being a realization of a third random variable, said first, second and third random variables having known distributions, (Hiratsuka et al., Column 13 Lines 37 – 53) and said verification means comprise: means for calculating, for said enrollment measurement and said verification measurement, the value of a function of the ratio of a bivariate joint probability density function under a first hypothesis and under a second hypothesis, (Hiratsuka et al., Figs. 5 & 11, Column 12 Line 40 – Column 13 Line 18, Column 13 Lines 19 – 36) said first hypothesis being that said first and second realizations of the first random variable are the same, (Hiratsuka et al., Fig. 5, Column 14 Lines 38 – 67) said second hypothesis being that said first and second realizations are different, (Hiratsuka et al., Fig. 5, Column 14 Lines 46 - 67) decision means for taking a decision whether or not the enrollment measurement and the verification measurement are from the same record medium by comparing the calculated value with a threshold value. (Hiratsuka et al., Fig. 5, Column 14 Lines 46 - 67) Asano et al. teach wherein the object being verified is a record medium. (Asano et al., Column 9 Line 22 - Column 10 Line 23) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Hiratsuka et al. to include the

teachings of Asano et al. This modification would have been prompted because both teachings relate to identity verification and therefor would be obvious to verify any type of data. Hiratsuka et al. could be modified by substituting the fingerprint data from record medium verification data of Asano et al. according to well-known electrical engineering methods and techniques without undue experimentation. In the combination the verification device of Hiratsuka et al. would perform the same method only using record medium data. The result of the combination would be completely predictable in that the verification method would be able to verify record medium verification data. The obviousness rationale advanced hereinabove is consistent with the criteria articulated in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Thebaud U.S. Patent No. 6,636,621; which is directed towards a system and method with identity verification by comparison and interpretation of skin patterns such as fingerprints.

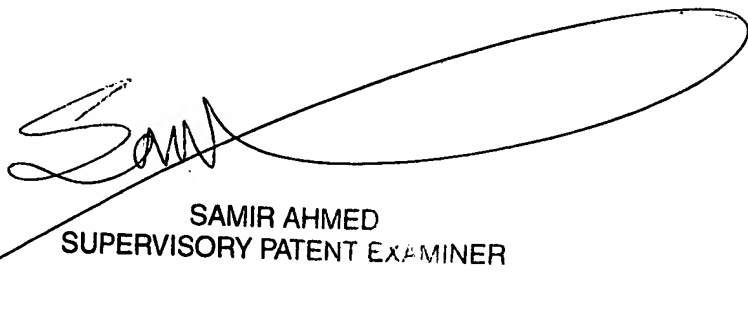
- Harkless et al. U.S. Publication No. 2001/0016055; which is directed towards a system and method with identity verification by streamlined comparison and interpretation of fingerprints and the like.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Rush whose telephone number is (571) 270-3017. The examiner can normally be reached on 7:30AM - 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached on (571) 272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ER



SAMIR AHMED
SUPERVISORY PATENT EXAMINER